UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,396	12/04/2001	Mark E. Epstein	5389.P001	9387

7590 11/18/2005

David L. McCombs
HAYNES AND BOONE, LLP
901 MAIN STREET, SUITE 3100
DALLAS, TX 75202-3789

EXAMINER	
MADAMBA, GLENFORD J	
ART UNIT	**PAPER NUMBER**
2151	

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,396	EPSTEIN ET AL.	
	Examiner	Art Unit	
	Glenford Madamba	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40-47,73-77 and 85-89* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40-47,73-77 and 85-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Remarks

1. This action is in response to remarks filed by Applicant's representative on August 25, 2005.

2. At this time, Claims 40-47, 73-77 and 85-89 are currently pending in the application.

Response to Arguments

3. Applicant's arguments filed on August 25, 2005 have been fully considered but they are not persuasive.

4. With respect to claim 40, Applicant argues that the Frailong prior art does not teach each and every element recited in the claim, which specifies "a control server to manage a plurality of device configurations comprising: a data store to store current status of each device; a user interface to alter data in the data store to prompt creation of a job; a scheduler to schedule jobs to update devices; and a control point interface to send jobs to a control point, and to receive a result from the control point. In particular,

Applicant argues that the Office Action references a control server 206, as cited by the claim, but does not include the added limitations of a control point interface, a data store, and a scheduler. The Office respectfully disagrees.

In the background for the invention, Frailong discloses that Business managers in charge of LANs or WANs must also address questions or issues related to the type and configuration of computer networks which are to be connected to external networks (i.e., Internet). In this regard, Frailong discloses as his invention a method and apparatus for initializing, configuring, and upgrading a network interface between a client computer network and an external network. The network interface device (108 / 208) is configured for the client system by automated procedures and protocols initiated from a remote server (206) [Absract] [col 2, lines 29-33] [col 3, lines 38-40]. In this way, the network interface device provides transparent communication between the client computer system and the remote server [Abstract].

Given the elements of the claim as recited in claim 40, the Office broadly interprets Applicant's invention to be a "control server computer system and method for managing a plurality of device configurations, comprising a data store, a user interface, a job scheduler, and a control point", and not just a control server device per se. Using this perspective, it is evident that the claim requirements are expressly disclosed by Frailong in Figures 3-5, which displays elements 508, 502, and 504, disclosed as part of the internal structure of the gateway device, but also as part of the entire system and/or apparatus and to which remote server 504 is also communicatively coupled. Using

Figure 6, Frailong teaches that while the gateway interface device contains a configuration manager 506 that is logically connected to Data Store 508 and user interface 502, remote server 504 can likewise communicatively connect to the configuration manager 506 in order to perform monitoring and reconfiguration (and essentially to the data store and user interface as well, which is expressly disclosed in Figure 6). Remote manager server 504 stores configuration information provided by the user, which is related to the user's LAN environment, service requirements, etc [col 10, lines 3-9]. Thus, in addition to the gateway interface device, elements 502, 508, and 404 are also comprising the control server system and/or apparatus as specified by the claim. Frailong therefore discloses each and every limitation of the claim.

Further regarding the claim, Applicant also argues that Frailong's general approach to network device management is "de-centralized". The prior art shows that this is simply not the case. Contrary to Applicant's assertion, Frailong makes it clear that the control server system of his invention is in fact "centralized" [col 5, lines 24-40].

5. Regarding claim 73, Applicant argues that the prior art reference does not teach every element in the claim. Specifically, claim 73 describes "a method of controlling a network using a control server, the method comprising: maintaining a data store including configurations of each device coupled to the control server through a control point; generating a job to update the device; receiving a report from the control point regarding execution of the job to update the device; and storing in the data store the

report with the current configuration of the device, such that a complete revision history of the device is maintained." In particular, Applicant asserts that the explanation provided by the Office Action is insufficient to clearly identify which components of Frailong correspond to the control server and the control point of the claim, and that it treats elements such as the data store 508 as if they were components of server 206 when they are actually components of the device 208. As pointed out by Applicant, claim 73 suffers from the same apparent deficiency of claim 40; however, it has been shown based on the above discussion for claim 40 that the Frailong prior art sufficiently meets the limitations of claim 40. Therefore, the limitations of claim 73 are also met since the elements of both claims have been treated in the same manner.

Moreover, with regards to the claim, Applicant also argues that the data store 508 of the device 208 contains only information relating to the particular device, and not any other devices, in contrast to the Office Action's assertion that the data store 508 contains "configurations of each device coupled to the control server through a control point." As previously discussed for claim 40, Frailong teaches that while the gateway interface device includes a configuration manager 506 that is logically connected to Data Store 508 and user interface 502, remote server 504 can likewise communicatively connect to the configuration manager 506 in order to perform monitoring and reconfiguration. Remote manager server 504 stores client information [col 2, lines 40-43] and configuration information provided by the user, which is related to the user's LAN environment, service requirements, etc [col 10, lines 3-9]. Frailong additionally

discloses that configuration manager 506 is further logically connected to data store 508, which primarily stores parameters related to the services. Changes to data store 508 are written to a Log File 710. Log File 710 in turn maintains a list of completed transactions to disk, and allows a mechanism whereby the configuration manager can roll back to a known good state in the event of a system crash [col 10, lines 50-60]. Thus, data store 508 contains and maintains configuration information for the gateway interface device as well as the client computer network. Frailong also provides an embodiment related to upgrading a VPN which includes the gateway interface device. Under this embodiment, Frailong teaches that all nodes of the VPN must be upgraded in order for the upgrade to be successful. Otherwise, a scenario may exist wherein different nodes of the same network would be running different versions of the system software [col 16, line 53 – col 17, line 24]. Frailong therefore discloses each and every limitation of the claim.

6. With regards to claim 85, Applicant argues that Frailong does not teach every element of the claim, which specifies " a method of remotely manipulating a device coupled to a control point, the control point managed by a control server comprising: generating a job to manipulate the device; sending the job to the control point to which the device is coupled; and providing an execution engine to execute the job on the control point." In particular, Applicant asserts that the explanation provided by the Office Action is insufficient to clearly identify which components of Frailong correspond to the control server, the control point, and the device of the claim, and that it treats

elements such as the execution engine 406 as if they were components of server 206 and/or a control point when they are actually components of the device 208. As pointed out by Applicant, claim 85, like claim 73 suffers from the same apparent deficiency of claim 40; however, it has been shown based on the above discussion for claim 40 that the Frailong prior art sufficiently meets the limitations of claim 40. Therefore, the limitations of claim 85 are also met for at least this reason since the elements of both claims have been treated in the same manner.

Moreover, with regards to the claim, Applicant also argues that the cited disclosures in the prior art of record does not disclose generating a job and sending it to a control point. The Office refers Applicant to sections regarding the generation of a job by the remote management server, for execution by a control point such as the gateway interface device: Upgrade Procedure (i.e., full upgrade) and VPN Upgrade. In the former, Frailong discloses as one embodiment of the invention, a full upgrade of the system software residing in the gateway interface device (i.e., upgrading 100% of the bits comprising the gateway interface device software), and making this entirely new revision of network interface software available to client networks. The upgrade process consists of transmitting an upgrade package and three scripts for implementing the upgrade procedure [col 15, lines 1-21]. Frailong further discloses that the remote management server sends a notification message to the gateway interface device within client networks which are to be upgraded, and includes four parameters: a "fetch time window", an "apply time window", an FTP address, and a decryption key. The gateway

interface device checks to see if it is part of a VPN, and if it is determined that it is not part of a VPN, records the notification message and the information specifying when to get the upgrade package, where to get the package, how to decrypt it, and when to execute the upgrade operation. A pre-install script ensures that an upgrade operation either completely fails or completely succeeds so that a gateway interface device or a client network is either fully upgraded, or left in the original state with regard to the version of the gateway software [col 15, line 30 – col 16, line 19].

With regards to the latter section, If it is determined that the gateway interface device is part of the VPN, then the upgrade operation proceeds according to the VPN upgrade protocol [Fig. 11]. A separate VPN upgrade protocol is required because a VPN presents a unique situation in which it is not desirable for only one member of the VPN to be upgraded when other members of the VPN are not upgraded. Under this scenario, a fully successful VPN upgrade necessitates that all nodes of the VPN (i.e., gateway interface device and clients of the network) must be upgraded. Each VPN node within the VPN executes the install script to apply the upgrade at the time specified by the apply time window and reports its upgraded status [col 16, line 53 – col 17, line 24].

7. Claims 41-47 and 87, Claims 74-77 and 88, and claims 86-89 respectively depend from claim 40, claim 73, and claim 85, and therefore remain rejected for at least the reasons discussed above for claims 40, 73, and 85.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 40, 43, 44-47, 73-77, and 85-86 are rejected under 35 U.S.C. 102(e) as being anticipated by Frailong et al (hereinafter Frailong), U.S. Patent 6,496,858.

3. As per Claim 40, Frailong discloses a control server (206) to manage a plurality of device configurations [Figure 2] comprising:

a data store (508) to store current status of each device;

a user interface (502) to alter data in the data store to prompt creation of a job;

a scheduler (404) to schedule jobs to update devices [Figure 4];

a control point interface (203/206) to send jobs to a control point (208), and to receive a result from the control point [Figure 2].

4. As per Claim 43, Frailong discloses the control server of claim 40, further comprising a device module to generate a job for a particular device [col 10. lines 26-32; Figure 7].

5. As per Claim 44, Frailong discloses the control server of claim 43, wherein the device module comprises:

a controller (404) to create data from a device profile; and

a master to create a job (task scheduler) using the data produced by the controller [col 7, lines 34-53].

4. As per Claim 45, Frailong discloses the control server of claim 44, wherein the master further to determine whether to create a job [col 7, lines 34-53].

5. As per Claim 46, Frailong discloses the control server of claim 44, wherein the device module further comprises:

a template to create device configuration files (516); and

a job to deliver changes to the device [col 9, lines 1-20; col 10, lines 3-16; Figure 6].

6. As per Claim 73 Frailong discloses a method of controlling a network using a control server, the method comprising:

maintaining a data store (508) including configurations of each device coupled to the control server through a control point [Figure 2, 4 & 5];

generating a job to update a device [Figure 6; col 9, lines 1-20];

receiving a report from the control point regarding the execution of the job to update the device [col 9, lines 55-58; col 10, line 60 – col 12, line 8] and

storing in the data store (508) the report with the current configuration of the device, such that a complete revision history of the device is maintained [col 10, lines 50-59 & col 11, lines 26-49].

7. As per Claim 74 Frailong discloses a method of Claim 73, wherein the revision history of the device includes a previous device profile for that device, enabling a new device to be configured identically to the original device, even if the new device is of a different make [col 10, lines 50-59 & col 8, lines 40-67].

8. As per Claim 75 Frailong discloses the method of claim 73, wherein the revision history of the device includes a previous device configuration file, enabling a review of the state of the device at any point in the past [col 10, lines 50-59; col 8, lines 40-67 & col 15, lines 10-15].

9. As per Claim 76, Frailong discloses the method of claim 73, wherein the revision history includes time and date stamps for each alteration to a device [col 10, lines 50-59; col 8, lines 40-67 & col 15, lines 10-15].

10. As per Claim 77, Frailong discloses the method of claim 73, wherein the job is generated in response to a change in the data store [col 8, lines 62-67].

11. As per Claim 85, Frailong discloses a method of remotely manipulating a device coupled to a control point, the control point managed by a control server, comprising:

generating a job to manipulate the device [Figure 6; col 9, lines 1-20];

sending the job to the control point to which the device is coupled [col 15, lines 1-21; also Figures 6 & 7]; and

providing an execution engine (406) to execute the job on the control point [Figure 4].

12. As per Claim 86, Frailong discloses the method of claim 85, wherein manipulating

the device comprises one or more of the following: initializing the device, updating the device, configuring the device, and auditing the device [col 2, lines 30-53 & col 11, line 33].

13. As per Claim 87, Frailong discloses the control server of claim 40, wherein each device is physically separate from the control server and from the control point associated with that device [Figs. 2, 4 & 5].

Claim 87 is also rejected using the citations and reasoning provided for claim 1 above as the limitations of this claim are addressed by claim 1.

14. As per Claim 88, Frailong discloses the method of claim 73,

including configuring the control server and the control points so that each device is physically separate from the control server and from the control points; and

wherein the maintaining, generating, receiving and storing are all carried out within the control server [Figs. 2, 4 & 5].

Claim 88 is also rejected using the citations and reasoning provided for claim 73 above as the limitations of this claim are addressed by claim 73.

15. As per Claim 89, Frailong discloses the method of claim 85,

Including configuring the control server and the control point so that the device is

physically separate from the control point; and

wherein the generating, sending and providing are all carried out within the control server [Figs. 2, 4 & 5].

Claim 89 is also rejected using the citations and reasoning provided for claim 85 above as the limitations of this claim are addressed by claim 89.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frailong in view of Zhang et al (hereinafter Zhang), U.S. Patent 6,687,748.

3. As per Claim 41, Frailong teaches in one embodiment that the update or upgrade process consists of transmitting an upgrade package and three scripts (i.e., pre-install, install, and post-install scripts), to implement the upgrade procedures. Frailong,

however, does not explicitly teach a control server wherein the user interface is a command line interface (CLI) permitting the creation of action scripts to make complex alterations to the devices, the control points, and the data store. Zhang, for his invention, discloses a network management server for managing multiple network devices coupled to a communication network, and teaches an interface (64) that comprises a command line interface (CLI) that receives control commands (54) [Zhang: Figure 3; col 5, line 63 – col 6, line 1].

It would therefore be obvious to one of ordinary skill in the art at the time of the invention to combine/modify Frailong's invention with the features/teachings of a command line interface command, disclosed by Zhang to manage the overall operation of a communication device (script implementation) and for generating, communicating and/or responding to events, such as alarms [Zhang: col 6, lines 1-5].

4. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frailong in view of Petculescu et al (hereinafter Petculescu), U.S. Patent 6,898,603.

5. As per Claim 42, Frailong discloses a data store and a configuration database for the system, but does not explicitly disclose that the data store is an SQL database presented in a hierarchical fashion. Petculescu, however, discloses in his invention a local data store for describing cells in a multidimensional and relational database. He discloses that a server populates the local data store by reading data from a fact data store. Petculescu further discloses that the system is embodied using an SQL Server

Database [Petculescu: col 6, lines 34-47]. It would therefore be obvious to one of ordinary skill in the art at the time of the invention to modify/combine the features/teachings of implementing a data store using an SQL database, as disclosed by Petculescu, to allow a user to specify and direct the insertion of data into a database cache [Petculescu: col 2, lines 9-11].

6. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frailong as being obvious.

7. As per Claim 47, Frailong discloses the control server wherein, in one embodiment an upgrade process involves a full upgrade of the system software residing in the device. He further discloses that such an upgrade would be necessary when an *entirely new revision* of the network interface device is made available to client networks [col 15, lines 1-10]. Although not expressly implied, it would be obvious for the device profile (device configuration files) to include the device module name and platform, characteristic of the device with the revision information, as part of the upgrade process in specifying how a particular client device needs to be configured [col 15, lines 10-15].

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenford Madamba whose telephone number is 571-272-7989. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3932. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Glenford Madamba
Examiner
Art Unit 2151